正奇事

Client:
LumCAT: ZS-FL2*2-K40-3065
Luminaire: LED 灯具
Report No:
Ballast type:

Test No:	Voltage(V): 120.010
LampCAT:	Current(A): 0.308
Lamp flux(lm): 4945.8	Power (W): 36.770
Number of Lamps: 1	PF: 0.995
Length(mm): 580	Width(mm): 580
Phm Type: C	Height(mm): 8

Photometric Results

Lumens(lm): 4945.83, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 134.51
Central intensity(cd): 1924.770, Maximum intensity(cd): 1924.770
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=97.8
[C90/270]Total=96.8
Field angle(10%Imax): [C0/180]Total=161.8
[C90/270]Total=162.0
Maximum s/h(1/2): C0_180=1.17 C90_270=1.16
Maximum s/h(1/4): C0_180=1.28 C90_270=1.26
Up flux rate of lamp(%): 2.25%
Down flux rate of lamp(%): 97.75%
Up flux rate of LUM(%): 2.25%
Down flux rate of LUM(%): 97.75%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 77.229%

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1924.770	0.000	0	0.00%	0.00%
5.0	1911.783	45.865	45.865	0.93%	0.93%
10.0	1874.918	135.462	181.327	2.74%	3.67%
15.0	1814.663	218.863	400.191	4.43%	8.09%
20.0	1730.565	292.177	692.367	5.91%	14.00%
25.0	1624.502	351.885	1044.252	7.11%	21.11%
30.0	1502.721	395.753	1440.004	8.00%	29.12%
35.0	1360.055	421.564	1861.568	8.52%	37.64%
40.0	1214.167	429.489	2291.058	8.68%	46.32%
45.0	1070.422	423.010	2714.068	8.55%	54.88%
50.0	921.764	402.550	3116.618	8.14%	63.02%
55.0	784.045	370.900	3487.518	7.50%	70.51%
60.0	652.700	332.100	3819.617	6.71%	77.23%
65.0	526.421	286.646	4106.263	5.80%	83.02%
70.0	412.991	237.865	4344.129	4.81%	87.83%
75.0	311.949	189.488	4533.616	3.83%	91.67%
80.0	220.604	142.497	4676.113	2.88%	94.55%
85.0	146.173	99.662	4775.775	2.02%	96.56%
90.0	68.396	58.750	4834.525	1.19%	97.75%
95.0	26.079	25.868	4860.393	0.52%	98.27%
100.0	18.631	12.149	4872.542	0.25%	98.52%
105.0	20.621	10.503	4883.045	0.21%	98.73%
110.0	18.788	10.301	4893.346	0.21%	98.94%
115.0	17.965	9.306	4902.652	0.19%	99.13%
120.0	16.992	8.498	4911.15	0.17%	99.30%
125.0	14.669	7.318	4918.468	0.15%	99.45%
130.0	12.722	5.956	4924.424	0.12%	99.57%
135.0	10.662	4.725	4929.149	0.10%	99.66%
140.0	8.229	3.498	4932.647	0.07%	99.73%
145.0	7.635	2.647	4935.294	0.05%	99.79%
150.0	8.608	2.392	4937.686	0.05%	99.84%
155.0	9.057	2.236	4939.921	0.05%	99.88%
160.0	9.506	1.947	4941.868	0.04%	99.92%
165.0	10.292	1.632	4943.5	0.03%	99.95%
170.0	11.153	1.272	4944.772	0.03%	99.98%
175.0	12.200	0.835	4945.608	0.02%	100.00%
180.0	6.287	0.221	4945.829	0.00%	100.00%

Zonal flux distribution table

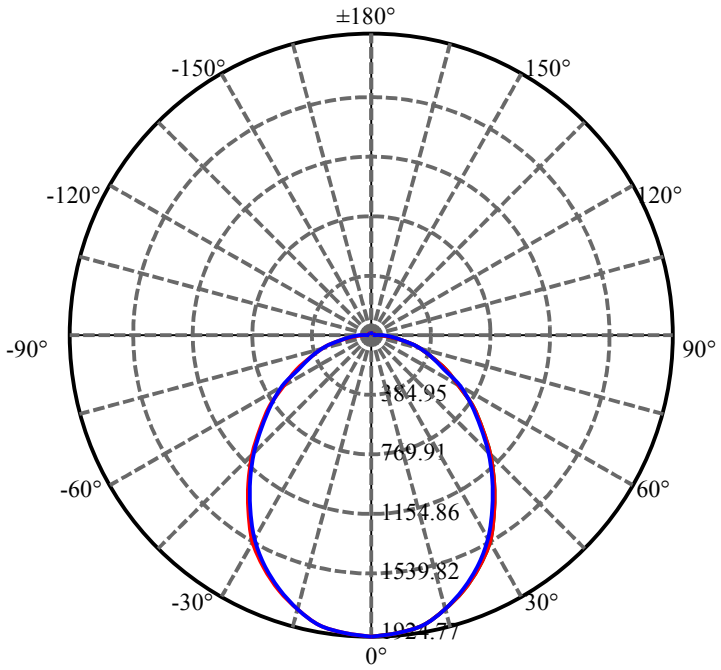
ZONAL LUMEN SUMMARY

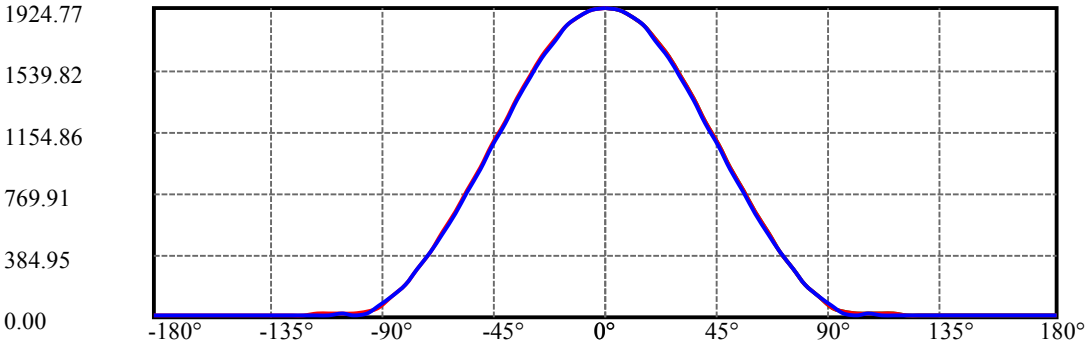
Zone	Lumens	%Lamp	%Fixt
0-30	1440.00	29.12%	29.12%
0-40	2291.06	46.32%	46.32%
0-60	3819.62	77.23%	77.23%
0-90	4834.53	97.75%	97.75%
0-120	4911.15	99.30%	99.30%
0-180	4945.83	100.00%	100.00%
60-90	1014.91	20.52%	20.52%
90-120	76.62	1.55%	1.55%
90-130	89.90	1.82%	1.82%
90-150	103.16	2.09%	2.09%
90-180	111.08	2.25%	2.25%
0-62.39	3956.66	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	181.33
10-20	511.04
20-30	747.64
30-40	851.05
40-50	825.56
50-60	703.00
60-70	524.51
70-80	331.98
80-90	158.41
90-100	38.02
100-110	20.80
110-120	17.80
120-130	13.27
130-140	8.22
140-150	5.04
150-160	4.18
160-170	2.90
170-180	0.84

Light Distribution Curve [Unit:cd]





C0(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:80.9 Right:80.9
:C90/270Left:81.0 Right:81.0

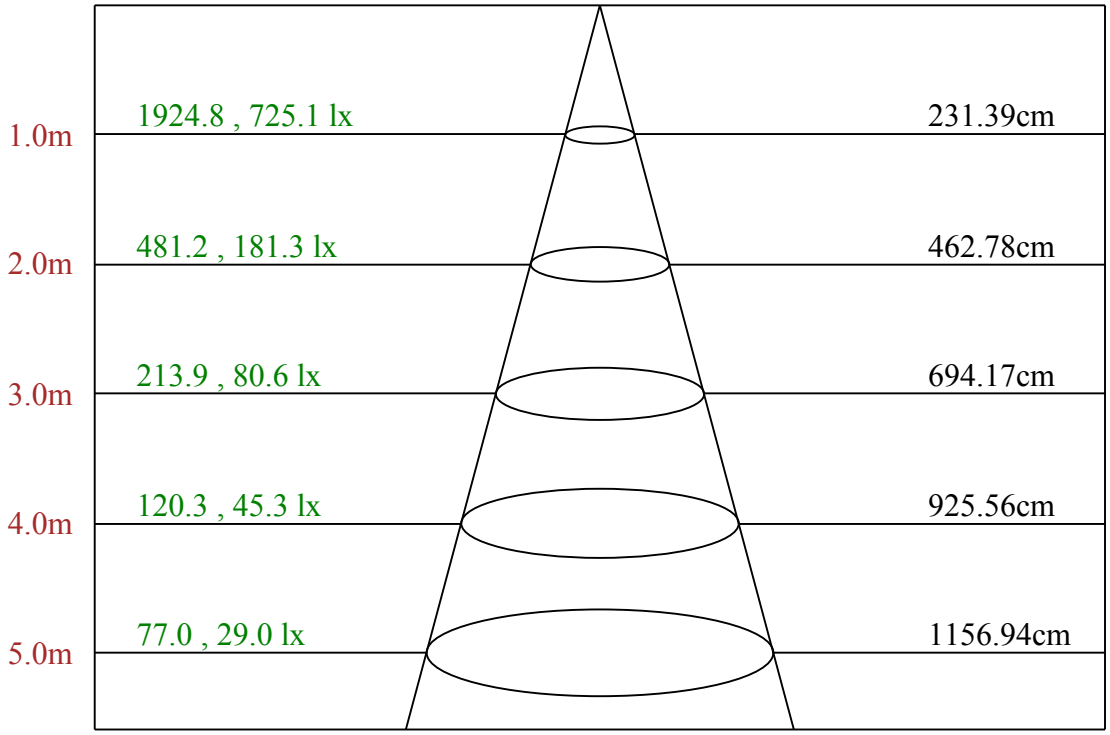
Beam Angle(50%Imax):C0/180Left:48.9 Right:48.9
:C90/270Left:48.4 Right:48.4

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2023/5/11
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 29.97

Lux distance Curve



Max , Ave

Beam angle of C0 plane 98.32

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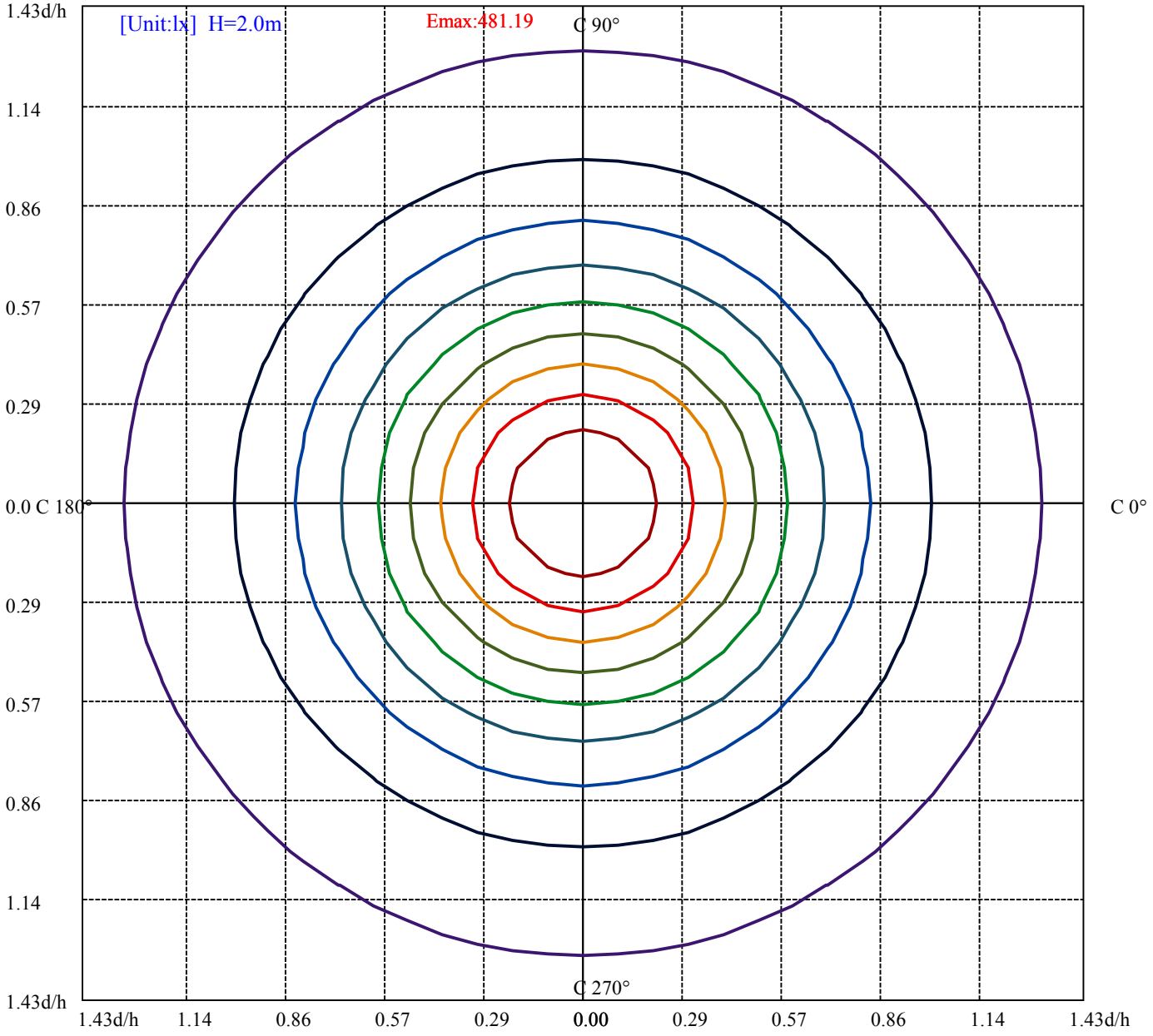
ISO illuminance diagram

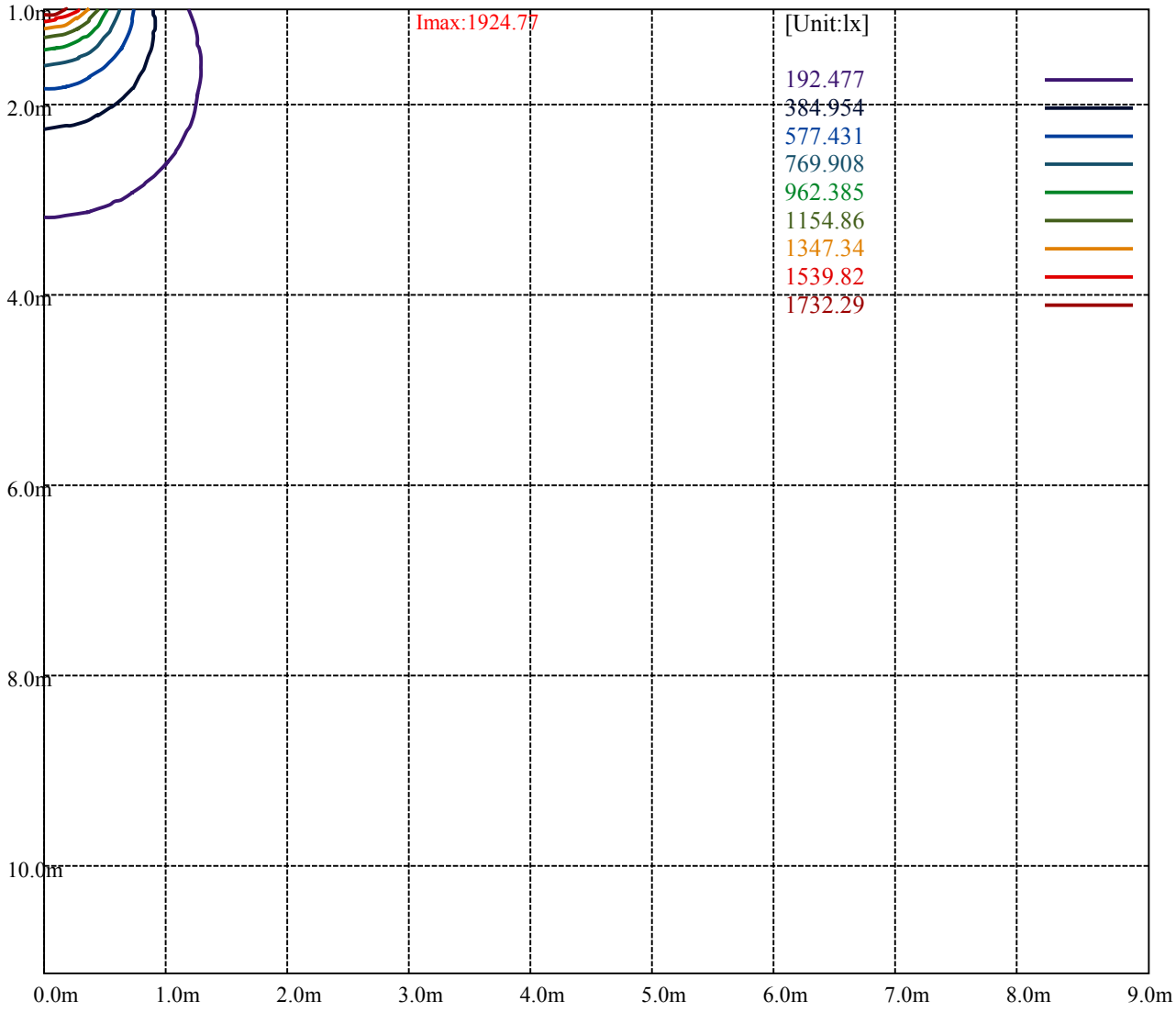


Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2023/5/11
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 29.97

Space ISO Lux diagram



Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2023/5/11
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 29.97

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Luminance Limitting Curve(no luminous side)

Luminance Table

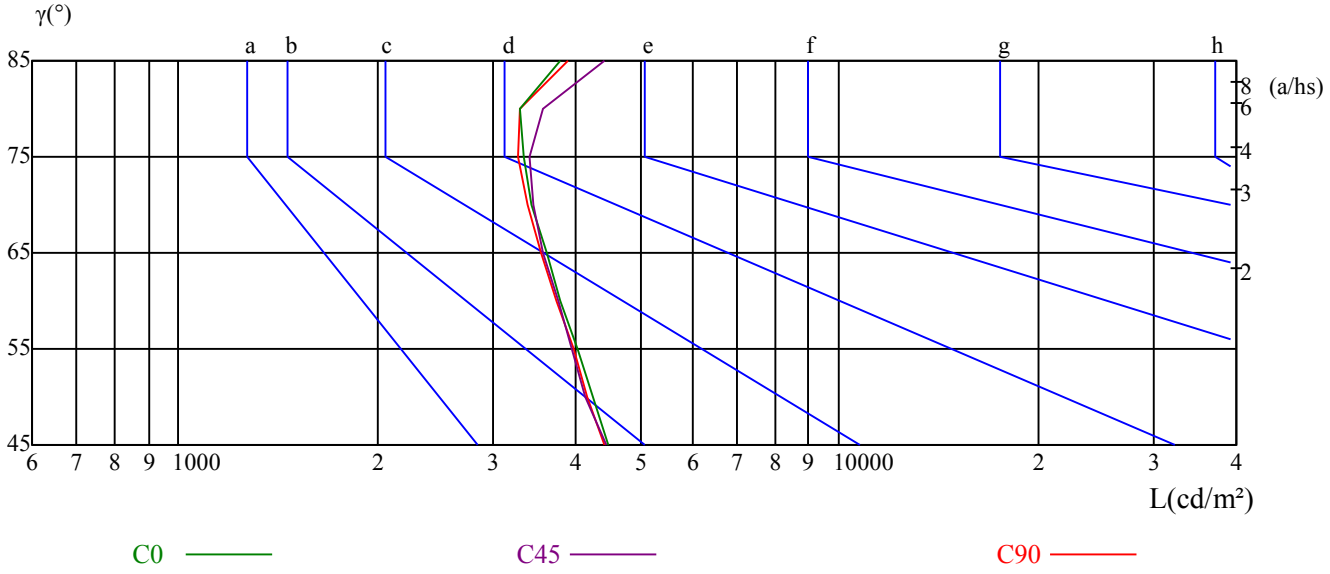
γ	45	50	55	60	65	70	75	80	85
C0	4472	4237	4015	3795	3600	3434	3329	3280	3783
C45	4452	4138	3949	3753	3570	3447	3394	3555	4412
C90	4403	4170	3957	3746	3533	3382	3269	3288	3892

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3707	3637	3719	3501	3437	3641	4380	4505	5395

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limitting Curve



Utilization factor table for indoor luminaire

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	0.98
1	1.03	0.99	0.95	1.01	0.97	0.93	0.96	0.93	0.90	0.92	0.89	0.86	0.88	0.85	0.84	0.81
2	0.90	0.83	0.78	0.88	0.82	0.76	0.84	0.79	0.74	0.80	0.76	0.72	0.77	0.74	0.70	0.68
3	0.79	0.71	0.65	0.78	0.70	0.64	0.74	0.68	0.63	0.71	0.66	0.61	0.69	0.64	0.60	0.58
4	0.71	0.62	0.55	0.69	0.61	0.55	0.66	0.59	0.54	0.64	0.58	0.53	0.61	0.56	0.52	0.50
5	0.63	0.55	0.48	0.62	0.54	0.48	0.60	0.52	0.47	0.58	0.51	0.46	0.55	0.50	0.45	0.43
6	0.57	0.48	0.42	0.56	0.48	0.42	0.54	0.47	0.41	0.52	0.46	0.41	0.51	0.45	0.40	0.38
7	0.52	0.43	0.37	0.51	0.43	0.37	0.49	0.42	0.37	0.48	0.41	0.36	0.46	0.40	0.36	0.34
8	0.48	0.39	0.33	0.47	0.39	0.33	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.32	0.30
9	0.44	0.36	0.30	0.43	0.35	0.30	0.42	0.35	0.30	0.41	0.34	0.30	0.39	0.34	0.29	0.27
10	0.41	0.33	0.28	0.40	0.32	0.27	0.39	0.32	0.27	0.38	0.31	0.27	0.37	0.31	0.27	0.25

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1924.77	1913.22	1882.12	1827.02	1743.49	1643.07	1520.44	1380.93	1243.19
15.0	1924.77	1915.81	1880.88	1826.25	1747.43	1642.64	1520.83	1386.48	1244.07
30.0	1924.77	1913.07	1882.48	1829.39	1747.50	1645.82	1523.44	1383.96	1239.09
45.0	1924.77	1915.78	1879.80	1823.13	1745.78	1645.05	1523.63	1382.42	1239.41
60.0	1924.77	1916.67	1884.30	1826.73	1745.78	1645.05	1522.73	1386.01	1236.71
75.0	1924.77	1916.69	1883.45	1825.97	1744.24	1642.75	1520.60	1384.97	1232.28
90.0	1924.77	1917.58	1887.03	1834.01	1746.85	1647.11	1521.30	1384.72	1231.96
105.0	1924.77	1917.57	1888.79	1833.03	1752.08	1647.75	1526.32	1384.22	1234.91
120.0	1924.77	1921.16	1891.37	1839.91	1764.07	1661.15	1537.47	1402.95	1250.38
135.0	1924.77	1919.37	1891.44	1839.20	1763.55	1664.47	1546.48	1409.58	1260.06
150.0	1924.77	1921.17	1892.41	1841.16	1765.65	1668.55	1548.09	1415.03	1268.50
165.0	1924.77	1919.39	1893.38	1842.25	1766.02	1669.15	1550.76	1416.22	1273.61
180.0	1924.77	1910.55	1870.56	1805.69	1730.16	1617.30	1495.56	1350.72	1206.76
195.0	1924.77	1910.44	1871.03	1806.54	1720.56	1613.98	1486.79	1343.49	1195.70
210.0	1924.77	1908.57	1869.88	1805.09	1719.60	1611.62	1488.34	1342.57	1196.79
225.0	1924.77	1908.58	1865.41	1802.45	1710.71	1604.57	1479.55	1339.24	1186.34
240.0	1924.77	1906.78	1865.41	1799.75	1713.40	1600.08	1475.06	1332.05	1189.04
255.0	1924.77	1906.81	1861.90	1792.74	1702.92	1593.35	1463.11	1324.79	1182.88
270.0	1924.77	1904.10	1860.97	1794.47	1702.82	1581.51	1456.61	1313.73	1172.65
285.0	1924.77	1903.18	1857.31	1789.86	1695.42	1582.99	1449.87	1307.76	1165.65
300.0	1924.77	1905.81	1859.77	1791.16	1702.68	1588.03	1460.73	1313.57	1174.54
315.0	1924.77	1904.05	1859.92	1791.47	1699.60	1587.91	1461.82	1318.61	1170.89
330.0	1924.77	1904.09	1859.14	1791.72	1700.92	1590.34	1524.71	1317.04	1173.20
345.0	1924.77	1902.35	1859.30	1792.92	1702.34	1593.81	1461.07	1320.25	1171.37
360.0	1924.77	1913.22	1882.12	1827.02	1743.49	1643.07	1520.44	1380.93	1243.19

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1094.79	945.50	805.99	663.81	540.29	420.32	315.46	212.38	135.07
15.0	1099.87	951.19	805.20	671.74	546.35	427.23	317.96	224.81	147.78
30.0	1094.21	944.84	806.26	666.79	545.31	431.03	327.54	236.66	160.17
45.0	1084.71	935.40	800.49	667.37	542.35	432.62	328.29	240.15	166.39
60.0	1083.81	935.40	796.89	663.78	545.05	429.93	327.39	238.35	161.90
75.0	1084.09	937.69	797.57	667.34	546.08	428.43	322.44	230.83	152.69
90.0	1084.59	938.12	802.44	672.14	544.54	428.63	321.69	227.34	145.57
105.0	1091.00	944.40	810.38	674.57	553.15	436.22	331.89	237.45	159.20
120.0	1100.51	955.16	812.52	678.00	557.93	444.18	340.36	250.08	175.14
135.0	1108.75	957.43	817.82	686.32	567.43	452.15	349.47	257.60	180.14
150.0	1122.86	968.23	830.68	691.33	567.27	452.20	348.81	256.22	175.31
165.0	1128.31	979.43	840.41	700.49	567.74	451.15	345.31	248.44	164.13
180.0	1061.91	917.06	774.00	643.37	513.63	399.88	294.14	200.83	121.74
195.0	1051.50	911.78	773.85	635.02	508.73	397.67	298.25	206.90	131.66
210.0	1050.12	902.55	765.77	637.99	520.11	407.63	303.25	217.76	145.77
225.0	1037.04	892.23	765.41	635.89	509.07	401.14	302.21	218.56	147.51
240.0	1040.63	902.12	761.81	628.70	505.48	393.95	295.01	210.47	143.01
255.0	1040.97	901.76	759.85	621.53	495.79	383.52	285.62	199.39	126.64
270.0	1038.76	894.99	754.81	618.23	489.73	379.20	276.76	186.91	118.61
285.0	1030.74	888.63	750.12	612.51	492.88	382.26	323.79	195.18	125.02
300.0	1022.87	885.65	750.23	678.00	492.03	384.59	285.28	202.23	136.32
315.0	1088.03	877.27	749.37	620.57	496.28	385.49	288.22	206.26	138.71
330.0	1023.97	875.63	742.58	614.92	498.95	383.88	280.49	201.38	131.25
345.0	1026.07	879.87	742.64	614.38	487.92	378.50	277.15	188.35	118.39
360.0	1094.79	945.50	805.99	663.81	540.29	420.32	315.46	212.38	135.07

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	71.09	31.10	23.99	20.44	18.66	17.77	16.88	16.00	14.22
15.0	78.82	32.24	24.18	20.60	17.91	17.02	16.12	14.33	13.43
30.0	81.89	29.69	22.50	20.70	19.80	18.90	17.10	13.50	11.70
45.0	83.65	26.08	17.99	19.79	19.79	17.99	17.09	16.19	13.49
60.0	80.05	26.98	12.59	17.99	17.09	16.19	16.19	11.69	10.79
75.0	69.16	32.33	8.08	16.17	13.47	13.47	13.47	13.47	12.57
90.0	69.19	31.45	5.39	17.07	16.17	14.38	14.38	14.38	13.48
105.0	85.45	34.18	8.09	16.19	13.49	12.59	13.49	13.49	12.59
120.0	106.53	31.60	12.64	18.96	18.06	17.15	16.25	11.74	10.83
135.0	111.69	27.02	18.01	19.82	19.82	18.91	18.01	16.21	13.51
150.0	107.88	30.57	22.48	20.68	19.78	18.88	17.08	12.59	11.69
165.0	95.97	31.39	24.22	20.63	17.94	17.04	16.14	14.35	13.45
180.0	39.10	29.32	23.99	21.33	19.55	18.66	16.88	16.00	13.33
195.0	45.68	29.56	24.18	21.50	18.81	17.91	17.02	14.33	12.54
210.0	50.39	28.80	22.50	23.40	22.50	21.60	19.80	12.60	11.70
225.0	53.97	24.28	22.49	23.39	22.49	20.69	19.79	17.99	11.69
240.0	50.37	17.09	23.39	22.49	19.79	18.89	17.99	12.59	12.59
255.0	45.81	9.88	8.98	20.66	16.17	17.07	17.07	16.17	14.37
270.0	79.08	8.99	8.09	20.67	17.97	17.97	17.97	17.07	16.17
285.0	45.87	11.69	16.19	19.79	16.19	17.09	17.09	16.19	14.39
300.0	48.75	18.96	24.38	22.57	20.76	19.86	18.06	13.54	12.64
315.0	50.44	24.32	24.32	24.32	22.52	21.62	19.82	18.01	9.01
330.0	48.55	28.77	24.27	24.27	22.48	21.58	17.08	13.49	11.69
345.0	42.15	29.60	24.22	21.53	19.73	17.94	17.04	16.14	13.45
360.0	71.09	31.10	23.99	20.44	18.66	17.77	16.88	16.00	14.22

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	13.33	12.44	8.00	8.89	8.89	9.77	10.66	11.55	12.44
15.0	12.54	11.64	8.06	8.96	8.96	9.85	10.75	10.75	12.54
30.0	10.80	6.30	8.10	9.00	9.00	9.90	10.80	10.80	11.70
45.0	5.40	6.30	8.09	8.99	8.99	9.89	10.79	11.69	11.69
60.0	9.89	7.20	8.09	8.99	8.99	9.89	10.79	11.69	12.59
75.0	11.68	11.68	8.08	8.98	8.98	9.88	10.78	10.78	12.57
90.0	12.58	11.68	8.09	8.99	9.88	10.78	10.78	10.78	12.58
105.0	11.69	11.69	8.09	8.99	9.89	10.79	10.79	10.79	12.59
120.0	9.93	6.32	8.13	9.03	9.03	9.93	10.83	11.74	11.74
135.0	5.40	6.30	8.11	9.01	9.01	9.91	10.81	11.71	12.61
150.0	10.79	6.29	7.19	8.99	8.99	9.89	10.79	11.69	12.59
165.0	12.56	11.66	7.18	8.97	8.97	9.87	10.76	11.66	12.56
180.0	11.55	9.77	7.11	8.00	8.89	8.89	9.77	10.66	12.44
195.0	11.64	6.27	7.17	8.06	8.96	8.96	8.96	10.75	11.64
210.0	9.90	6.30	7.20	8.10	9.00	9.00	9.90	10.80	11.70
225.0	6.30	6.30	7.20	8.09	8.99	8.99	9.89	10.79	11.69
240.0	11.69	6.30	7.20	8.09	8.99	8.99	9.89	10.79	11.69
255.0	13.47	8.98	7.19	8.08	8.98	8.98	9.88	10.78	11.68
270.0	14.38	9.88	8.09	8.99	8.99	8.99	9.88	11.68	12.58
285.0	13.49	8.99	8.09	8.99	8.99	8.99	9.89	11.69	12.59
300.0	9.93	6.32	7.22	8.13	9.03	9.03	9.93	11.74	12.64
315.0	5.40	6.30	7.21	8.11	9.01	9.01	9.91	10.81	11.71
330.0	9.89	6.29	7.19	8.09	8.99	8.99	9.89	10.79	11.69
345.0	11.66	6.28	7.18	8.07	8.97	8.97	9.87	10.76	12.56
360.0	13.33	12.44	8.00	8.89	8.89	9.77	10.66	11.55	12.44

Intensity data(cd)

C/γ(°)	180.0
0.0	12.44
15.0	12.54
30.0	12.60
45.0	12.59
60.0	12.59
75.0	12.57
90.0	12.58
105.0	12.59
120.0	12.64
135.0	12.61
150.0	12.59
165.0	12.56
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	12.44